

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1-52. (cancelled)

53. (new) A conduit travelling vehicle, comprising:

an extensible body comprising a forward body portion and a rearward body portion,

the forward body portion and the rearward body portion being separated by a powered telescoping connection of variable and controllable length, wherein the powered telescoping connection controllably alters a distance between said forward and rearward body portions;

each of said forward body portion and rearward body portion including a wall-engaging mechanism;

each wall engaging mechanism comprising a plurality of radially pivotable legs, each radially pivotable leg connected to one of said forward and rearward body portions at one end and having a wall-engaging foot at a distal end;

for each wall engaging mechanism, all of the radially pivotable legs comprising wall engaging feet connecting to a common actuator, said common actuator controlling the radially extended position of said radially pivotable legs between retracted and extended positions;

at least one of the wall engaging mechanism including at least one retractable wheel arrangement, said retractable wheel arrangement comprising a plurality of wall engageable wheel assemblies each coupled to a radially pivoting wheel bracket;

said radially pivotable legs and said radially pivoting wheel brackets of said one wall engaging mechanism coupled with a coupling, the coupling preventing both of i) said radially pivotable legs and ii) said radially pivoting wheel brackets from being simultaneously in a fully radially extended position.

54. (new) The conduit travelling vehicle of claim 53, wherein the telescoping connection between said forward body portion and said rearward body portion comprises a cylinder and rod, one of said body portions being connected to the cylinder, and the other of said body portions being connected to the rod.

55. (new) The conduit travelling vehicle of claim 54, wherein the common actuator of at least one said wall engaging mechanism comprises an annular travelling cylinder about the cylinder of the telescoping connection.

56. (new) The conduit travelling vehicle of claim 54, wherein the common actuator of at least one said wall engaging mechanism is attached to the rod of the telescoping connection,

and comprises a piston and cylinder arrangement incorporating the rod of the telescoping connection.

57. (new) The conduit travelling vehicle of claim 53, wherein the radially pivotable legs of at least one said wall engaging mechanism are of substantially equal length and distributed, relative to the longitudinal axis of the conduit travelling vehicle, with substantially equal angles of radial separation from each other.

58. (new) The conduit travelling vehicle of claim 53, wherein said retractable wheel arrangement comprises a non-rigid coupling arrangement accommodating radial travel of said wall engageable wheel assembly in response to irregularities in the wall of a conduit.

59. (new) The conduit travelling vehicle of claim 53, wherein at least one said wall-engaging foot is pivotably connected to the radially pivotable leg with which the wall-engaging foot is associated.

60. (new) The conduit travelling vehicle of claim 59, wherein,

each radially pivoting leg is pivotably attached to a corresponding wall-engaging foot by a first pivot and to an

associated one of said forward and rearward body portions by a second pivot;

a control linkage is pivotally attached at one end to said wall-engaging foot by a third pivot and pivotally attached by a fourth pivot, at a distal end, to the associated one said forward and rearward body portion;

a combination creating a pantographic arrangement provided by orientation of said wall-engaging foot, relative to the longitudinal axis of the conduit travelling vehicle, remains constant for any radially splayed position of the attached radially pivoting leg.

61. (new) The conduit travelling vehicle of claim 53, wherein the radially pivotable legs of the wall engaging mechanism of the rearward body portion are angled to trail rearwardly when fully extended.

62. (new) The conduit travelling vehicle of claim 53, wherein each wall-engaging mechanism comprises a modular assembly removably mounted to the an associated forward or rearward body portion.

63. (new) The conduit travelling vehicle of claim 53, wherein each wall-engaging mechanism is remotely controllable

with respect to extending and retracting the radially pivotable legs.

64. (new) The conduit travelling vehicle of claim 53, further comprising a rotary cutter mounted at the front of the forward body portion.

65. (new) The conduit travelling vehicle of claim 64, said apparatus further comprising:

a sensor for sensing a load applied to said rotary cutter when the cutter encounters foreign material in a conduit;

said sensor connected to control means influencing the rate of forward movement of the conduit travelling device by synchronized operation of the telescoping connection and wall engaging mechanisms.

66. (new) The conduit travelling vehicle of claim 53, further comprising outwardly directed water jets on the forward body portion.

67. (new) The conduit travelling vehicle of claim 53, further comprising a vacuum line with an inlet, mounted to one to the forward and rearward body portions such that the inlet is on the underside of the conduit travelling vehicle.

68. (new) The conduit travelling vehicle of claim 53, further comprising a retractable wheel arrangement on the front body portion of the conduit travelling vehicle.

69. (new) The conduit travelling vehicle of claim 53, wherein,

a plurality of longitudinally separated and connected blade elements are coupled to the rearward body portion of the conduit travelling vehicle;

said blades comprising an element of at least part circular shape, and of commensurate radius to the conduit, wherein the vehicle in use is oriented to the plane perpendicular to the longitudinal axis of the conduit travelling vehicle;

at least a portion of said blades being positioned below the level of the longitudinal axis of said conduit travelling vehicle and including a pivotable connection allowing pivoting of the lowermost portion of a blade about a pivot axis lying in said plane perpendicular to the longitudinal axis of the conduit travelling vehicle,

said pivoting is restricted to between the blade being within said plane perpendicular to the longitudinal axis of the conduit travelling vehicle, and at an angle in one direction therefrom about said pivot axis; and

the permitted direction of pivoting of all blade portions are identical.

70. (new) The conduit travelling vehicle of claim 69, wherein said blades being are coupled to the rearward body portion by a linear actuator, the linear actuator operable to impart a linear reciprocating motion to said blades.

71. (new) A conduit travelling vehicle as claimed in claim 53, further comprising an inspection camera.

72. (new) A method of moving a conduit travelling vehicle, along a conduit, said method comprising the step of:

with a conduit travelling vehicle, comprising

an extensible body comprising a forward body portion and a rearward body portion,

the forward body portion and the rearward body portion being separated by a powered telescoping connection of variable and controllable length, wherein the powered telescoping connection controllably alters a distance between said forward and rearward body portions;

each of said forward body portion and rearward body portion including a wall-engaging mechanism;

each wall engaging mechanism comprising a plurality of radially pivotable legs, each radially pivotable leg connected to one of said forward and rearward body portions at one end and having a wall-engaging foot at a distal end;

for each wall engaging mechanism, all of the radially pivotable legs comprising wall engaging feet connecting to a common actuator, said common actuator controlling the radially extended position of said radially pivotable legs between retracted and extended positions;

at least one of the wall engaging mechanism including at least one retractable wheel arrangement, said retractable wheel arrangement comprising a plurality of wall engageable wheel assemblies each coupled to a radially pivoting wheel bracket;

said radially pivotable legs and said radially pivoting wheel brackets of said one wall engaging mechanism coupled with a coupling, the coupling preventing both of i) said radially pivotable legs and ii) said radially pivoting wheel brackets from being simultaneously in a fully radially extended position,

alternately operating the common actuator of each wall engaging mechanism to radially extend the connected radially pivotable legs to an extended position, and successively extending and contracting the telescoping connection in synchronicity with operation of said common actuators, to alternately move the forward and rearward body portions when the respective legs of one of the forward and rearward body portions are in a retracted position, and the respective legs of the other

one of the forward and rearward body portions body portions are
not in the retracted position.